ISSN 0704-3716

Canadian Translation of Fisheries and Aquatic Sciences

No. 5250

# Barbourisia rufa Parr (Barbourisiidae, Cetomimiformes) and Aphyonus gelatinosus Gunther (Aphyonidae, Ophidiiformes) in the Indian Ocean

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Original title: Barbourisia rufa Parr (Barbourisiidae, Cetomimiformes) i Aphyonus gelatinosus Gunther (Aphyonidae, Ophidiiformes) v Indiiskom okeane

In: Byul. Mosk. o-va ispytatelei prirody, otd. biol. Volume 88(2): 52-53, 1983

Original language: Russian

Fisheries & Oceans
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Pêches Océans

Available from:
Canada Institute for Scientific and Technical Information
National Research Council
Ottawa, Ontario, Canada K1A 0S2

1986

3 typescript pages

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MULTILINGUAL SERVICES DIVISION – DIVISION DES SERVICES MULTILINGUES

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Title in English or French - Titre anglais ou français

Barbourisia rufa Parr (Barbourisiidae, Cetomimiformes) and Aphyonus gelatinosus GÜnther (Aphyonidae, Ophidiiformes) in the Indian Ocean

Title in foreign language (Transliterate foreign characters)
Titre en langue étrangère (Transcrire en caractères romains)

Barbourisia rufa Parr (Barbourisiidae, Cetomimiformes) i Aphyonus gelatinosus GÜnther (Aphyonidae, Ophidiiformes) v Indiiskom okeane

Reference in foreign language (Name of book or publication) in full, transliterate foreign characters.
Référence en langue étrangère (Nom du livre ou publication), au complet, transcrire en caractères romains.

Byul. Mosk. o-va ispytatelei prirody, otd. biol.

Reference in English or French - Référence en anglais ou français

Bulletin of the Moscow Naturalists Society, Biology Division

| Publisher - Éditeur | DATE OF PUBLICATION / DATE DE PUBLICATION | | | Page Numbers in original / Numéros des pages dans l'original |
|---|---|---|---|---|
| Not given | Year / Année | Volume | Issue No. / Numéro | 52-53 |
| Place of Publication / Lieu de publication | | | | Number of typed pages / Nombre de pages dactylographiées |
| USSR | 1983 | 88 | 2 | 3 |

Requesting Department / Ministère-Client: DFO

Branch or Division / Direction ou Division: IPB

Person requesting / Demandé par: Nancy Johnson, Info. and Publications Branch

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Date of Request / Date de la demande: 03 September 1986

Translation Bureau No. / Notre dossier nº: 2537250

Translation (Initials) / Traducteur (Initiales): WDP

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OCT - 8 1986

Canada

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| Bureau No.–N° du bureau | Language – Langue | Translator (Initials) – Traducteur (Initiales) | |
| 2537250 | Russian | WDP | OCT - 8 1986 |

Byul. Mosk. o-va ispytatelei prirody (Bulletin of the Moscow Naturalists Society), otd. biol. (Biology Division), 1983, t. 88, vyp. 2 (Vol. 88, Issue 2), pp. 52-53 (USSR)

UNEDITED TRANSLATION
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13.01.82

UDC 597

# Barbourisia rufa Parr (Barbourisiidae, Cetomimiformes) and Aphyonus gelatinosus Günther (Aphyonidae, Ophidiiformes) in the Indian Ocean

Yu. N. Shcherbachev

/52*

The cetomimiform fish Barbourisia rufa Parr and the viviparous ophidioform fish Aphyonus gelatinosus Günther, 1978 occur extremely rarely. All known publications on B. rufa are usually based on new finds and the description of isolated specimens, while after the first description of A. gelatinosus only a few specimens of this species were caught. At the same time, research in recent years by Soviet ichthyologists in the thalassobathyal zone of the Indian Ocean has shown B. rufa to be quite common in this region; A. gelatinosus, too, has been found for the first time in the Indian Ocean. These new finds in fact formed the basis for writing this paper. The B. rufa and A. gelatinosus collection is kept in the Zoological Museum of Moscow University.

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*Numbers in the right-hand margin indicate the corresponding pages in the original.

## Barbourisia rufa Parr, 1945

Material. 12 specimens SL 182-356 mm. Zoological Museum, Moscow State University: P-14493 (27°05 S, 33°26 E, fishing depth, 1,070 m) - 1 specimen SL 196 mm; P-14494 (7°14 S, 58°47 E, 1,500 m) - 1 (195); P-14496 (33°37 S, 45°27 E, 1,160-1,200 m) - 1 (207); P-14497 (32°38 S, 38°14 E, 1,220 m) - 1 (317); P-14498 (32°43 S, 34°57 E, 1,350 m) - 1 (197); P-14498 (8°00 S, 59°27 E, 1,200-1,320 m) - 1 (182); P-14506 (33°20 S, 45°03 E, 10 1,068-1,110 m) - 1 (152); P-15181 (17°05 S, 88°09 E, 1,650-1,660 m) - 2 (340, 345); P-15182 (14°31 S, 88°12 E, 1,820-1,880 m) - 1 (336); P-15183 (12°45 S, 61°11 E, 1,500 m) /53 - 1 (326); P-15184 (8°07 S, 59°19 E, 1,240-1,300 m) - 1 (316).

In this paper we have used the following symbols to denote features: D, A, P and V are the numbers of rays in the corresponding fins: sp. br. is the number of rakers on the 1st gill arch; vert. is the number of trunk and caudal vertebrae; p.c. is the number of pyloric caeca, SL is the standard length; c is the length of the head; ao is the length of the snout; o is the horizontal diameter of the eye; io is the interorbital space; $l_{mx}$ is the length of the upper jaw; lP and lV are the lengths of the pectoral and ventral fins; $H_D$ and $H_v$ are the body height on a vertical line [running from] the beginning of the base of the dorsal and ventral fins; AD, aV and aA are the predorsal, preventral and preanal distances.

We shall now give some meristic and plastic features of the specimens that we investigated. D 20-23; A 16-17; P 12-13; V 6; sp. br. (5-7)+1+(13-16) = 19-22; 24-31 pores in lateral line; p.c. 10-12; measurements of 5 specimens SL 315-345 mm; % SL: c 30.5-33.5; ao 9.4-12.3; o 2.4-2.9; io 10.3-12.0; $l_{mx}$ 19.7-24.0; lP 6.6-7.1; lV 5.7-7.3; aD 56.8-61.3; aV 46.0-48.4; aA 63.2-68.5; Hv 16.2-23.3.

B. rufa's stomach contents indicate that this species inhabits both mesopelagic and near-bottom waters: we found the following squid and shrimps in the stomachs of four specimens: Enoploteuthidae g. sp., Todaropsis eblanae?, Ommastrephidae g. sp., and Acanthephyra sp.? (identifications by K.N. Nesis).

Occurrence. B. rufa is known on the basis of comparatively few specimens from the Atlantic, the southwestern Indian Ocean and the Western Pacific (Shcherbachev and others, 1978). Most of the catches of this species have been immediately offshore, which has given reason to assign B. rufa tentatively to the bathyal-pelagic Ichthyocene* (Parin and Golovan', 1976). The specimens that we investigated were taken with bottom trawls in the open Indian Ocean, over underwater mountain ranges and uplifts recently classed as a separate faunistic zone - the thalassobathyal zone (Andriyashev, 1974; Andriashev, 1977). Thus B. rufa belongs biotopically to two faunistic zones of the demersal* community of bathyal fish; it has a circumtropical geographic range (see illustration) and occurs at depths ranging from 329-384 m (Struhsaker, 1965) to 1820-1880 m (our data).

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Translator's notes:

*"Ichthyocene" is a direct rendition of the original Russian ikhtiotsen.

*"Demersal" is a proposed rendition of the original Russian adjective naddonnyi, literally "above-bottom".